#### IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS DALLAS DIVISION

THE BOARD OF REGENTS OF THE	§	
UNIVERSITY OF TEXAS SYSTEM and	§	
HYDRO-QUÉBEC,	§	
	§	
Plaintiffs,	§	
	§	Civil Action No. 3:06-cv-1655-B
V.	§	
	§	
A123 SYSTEMS, INC., BLACK &	§	
DECKER CORPORATION, and	§	
BLACK & DECKER (U.S.) INC.	§	
	§	
Defendants.	§	

#### SECOND AMENDED COMPLAINT AND JURY DEMAND

Plaintiffs The Board of Regents of the University of Texas System (the "Board of Regents") and Hydro-Québec file their Second Amended Complaint and Jury Demand against Defendants A123 Systems, Inc. ("A123"), Black & Decker Corporation, and Black & Decker (U.S.) Inc., on personal knowledge as to all facts regarding themselves and on information and belief as to all other matters, as follows:

### I. PRELIMINARY STATEMENT

Rechargeable lithium iron phosphate batteries are the world's next generation of electrical power sources, representing billions of dollars of potential sales. That valuable technology was invented and patented by world-renowned scientist and University of Texas ("UT" or the "University") faculty member, Dr. John Goodenough, and others working under his direction within UT's Materials Science and Engineering Department. The patents-in-suit — U.S. Patent No. 5,910,382 ("the '382 Patent"), as amended by *Ex Parte* Reexamination Certificate (the "R382 Patent"), and U.S. Patent No. 6,514,640 ("the '640 Patent"), as amended

by *Ex Parte* Reexamination Certificate (the "R640 Patent") — were assigned to the Board of Regents which, in turn, granted Hydro-Québec an exclusive license to manufacture, use, sell, import, and offer for sale a significant portion of the patented technology while reserving to the Board of Regents all remaining rights. Plaintiffs' economic interests in the commercialization of the patented technology are threatened by the willful conduct of Defendants, who are making and selling the infringing batteries and cathode materials in this District and throughout the United States. By this action, Plaintiffs seek to enjoin Defendants from engaging in further acts of infringement, as well as monetary relief for Defendants' past wrongful acts.

#### II. PARTIES

#### A. Plaintiffs

- 1. Plaintiff Board of Regents of the University Texas System is an agency of the State of Texas, located at 201 West 7<sup>th</sup> Street, Austin, Texas 78701. UT is the largest component of The University of Texas System.
- 2. Hydro-Québec is a Canadian crown corporation with its principal place of business in Montréal, Québec. The Province of Québec is the sole shareholder of Hydro-Québec. Hydro-Québec's primary business is generating and distributing electricity to the citizens of Québec and other customers within Canada.

#### B. A123

3. Established in December 2001, A123 is a privately-held Delaware corporation its principal place of business in Watertown, Massachusetts. A123, through Black & Decker's national distribution channel, is selling Al23's infringing rechargeable lithium metal phosphate batteries for use in Black & Decker's products, including, but not limited to, the DeWalt line of 36-volt cordless power tools. In addition to other acts that constitute doing business in Texas,

A123 has committed acts of patent infringement in this state. The Court's exercise of personal jurisdiction over A123 would not offend due process because A123 should easily have foreseen that the injurious effect of its acts would be felt in Texas. Although A123 is doing business in Texas, it had not designated a registered agent for service of process in Texas. Therefore, A123 was properly served by serving the summons and complaint on the Texas Secretary of State with a copy forwarded to A123's registered agent for service of process in Massachusetts and President and CEO, David P. Vieau, Arsenal on the Charles, 321 Arsenal Street, Watertown, Massachusetts 02472. A123 has appeared in this action and does not contest the Court's personal jurisdiction over it or the manner in which it was served with process.

#### C. The Black & Decker Defendants

4. Black & Decker Corporation is a publicly-traded company with its principal place of business in Towson, Maryland. It is a global manufacturer and marketer of power tools and accessories under the "Black & Decker" name as well as other trademarks and trade names, including "DeWalt." According to the Black & Decker website, its "DEWALT tools can be found wherever tools are sold, nationally and internationally" and "[w]ith over 1,000 factory owned and authorized locations, DEWALT has one of the most extensive service and repair networks in North America." In addition to other acts that constitute doing business in Texas, Black & Decker Corporation has committed acts of patent infringement in this state. The Court's exercise of personal jurisdiction over Black & Decker Corporation would not offend due process because Black & Decker should easily have foreseen that the injurious effect of its acts would be felt in Texas. Although Black & Decker Corporation is doing business in Texas, it had not designated a registered agent for service of process in Texas. Therefore, Black & Decker Corporation was properly served with process by serving the summons and complaint on the Texas Secretary of State with a copy forwarded to Black & Decker Corporation's Maryland

registered agent for service of process, Natalie A. Shields, 701 E. Joppa Road, Towson, Maryland 21286. Black & Decker Corporation has appeared in this action and does not contest the Court's personal jurisdiction over it or the manner in which it was served with process.

- 5. Black & Decker (U.S.) Inc., a wholly-owned subsidiary of Black & Decker Corporation, is a Maryland corporation with its principal place of business in Towson, Maryland. It is registered to do business in Texas, and was properly served with process through its registered agent for service of process, CT Corporation System, 350 N. St. Paul Street, Dallas, Texas 75201. Black & Decker (U.S.) Inc. has appeared in this action and does not contest the Court's personal jurisdiction over it or the manner in which it was served with process.
- 6. Black & Decker (U.S.) Inc. and Black & Decker Corporation are hereinafter jointly referred to as "Black & Decker."

### III. JURISDICTION AND VENUE

- 7. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338, because Plaintiffs' claims arise under the patent laws and other statutes of the United States.
- 8. This Court has personal jurisdiction over A123, because it is doing business in Texas, and has committed torts inside and outside Texas that have caused harm in this state. Specifically, A123 is manufacturing and selling infringing batteries, which are being marketed for sale in Texas through its internet website and distributed through Black & Decker's established distribution channel in Black & Decker's products, including but not limited to, the DeWalt line of power tools. Plaintiffs' claims for patent infringement arise from A123's infringing activities in the State of Texas and throughout the United States which were calculated to cause and have caused substantial harm to the Board of Regents, an agency of the State of

Texas. Even after being warned by Hydro-Québec that its battery products infringe the Board of Regents' '382 Patent, A123 intentionally delivered its infringing products into commerce with the expectation that they will be purchased by consumers in Texas. Further, A123 has received substantial investment funds from several entities licensed to conduct, and conducting, business in Texas, including Motorola Inc., GE Commercial Finance Technology Lending LLC, Qualcomm, Inc., and AllianceBernstein Investment Research and Management, Inc. Because the Board of Regents is a state agency, the State of Texas has a significant interest in this suit. In sum, A123's conduct and connections with Texas are purposeful and such that it must have reasonably foreseen that it would be sued in Texas by the Board of Regents, the owner of the patents in suit. A123 has appeared in this action and does not contest the propriety of venue in this Court or the exercise of personal jurisdiction over A123.

9. This Court has personal jurisdiction over Black & Decker because Black & Decker Corporation and Black & Decker (U.S.), Inc. have committed torts inside and outside Texas that have caused harm in this state. Specifically, Black & Decker is marketing and selling products, including but not limited to, its DeWalt line of 36-volt cordless power tools which contain Al23's infringing lithium metal phosphate batteries in stores, including Home Depot and Lowes, throughout the United States, including stores located in Dallas County, Texas. Plaintiffs' claims for patent infringement arise from Black & Decker's infringing activities in the State of Texas and throughout the United States which were calculated to and have caused substantial harm to the Board of Regents, an agency of the State of Texas. Even after warning from Hydro-Québec that Al23's battery products infringe the Board of Regents' '382 Patent, Black & Decker began marketing and selling, and is continuing to market and sell, the infringing

products in Texas. Black & Decker does not contest that venue is proper in this Court, or this Court's exercise of personal jurisdiction over Black & Decker.

10. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b) and 1400(b) because: (a) Black & Decker (U.S.) maintains offices and agents in this District, including Black & Decker DeWalt power tool service centers, and has a designated registered agent for service of process in Dallas County, Texas; (b) this Court has personal jurisdiction over the corporate defendants in this District; and (c) a substantial number of the events giving rise to Plaintiffs' claims occurred in Dallas County, Texas — namely Defendants are committing numerous acts of patent infringement in this District by selling infringing products.

#### IV. FACTUAL BACKGROUND

# A. <u>Dr. John Goodenough And UT: A Worldwide Reputation And Unsurpassed Record Of Accomplishment In Materials Science And Engineering.</u>

- 11. Located in Austin, Texas, UT is one the finest universities in the country and is home to approximately 50,000 students, 3,000 faculty, and 18,000 staff members. The University is recognized worldwide for the numerous contributions of its faculty to advance research in the areas of genetics, chemistry, and engineering.
- 12. Since the 1980's, the Department has provided facilities in which world-class scientists and engineers conduct modern materials research. Examples of the program's projects include: (a) the design, synthesis, characterization, and fabrication of new or improved materials for structural, microelectronic, magnetic, dielectric, and optical devices; (b) the production of nanostructure materials for mechanical, superconductor, and optical applications; (c) the exploration of advanced structural mechanics; and (d) the creation of alternate methods of energy conversion and storage, including the development of high-performance battery technology. Since 1998, the Department has been operated as the degree component of the Texas Materials PLAINTIFFS' SECOND AMENDED COMPLAINT AND JURY DEMAND

Institute (the "Institute"), which was established to ensure the continuing availability of the resources necessary to support modern materials science research.

13. The many advancements that have emanated from the University in materials science research are the result of the combination of resources and the talent that the University has assembled under the leadership of Dr. John Goodenough. Professor Goodenough, who became a professor at UT and a member of the Materials Science and Engineering Program in 1986, is the most distinguished member of the Department and the Institute. Dr. Goodenough has made substantial contributions in the area of materials science and is internationally known for his discoveries of various materials for use in high-performance batteries, including two cathode materials widely used today and for the past two decades in the commercial lithium-ion battery industry. Since joining UT, Dr. Goodenough has published extensively in these areas, has been issued numerous U.S. patents for his work, and has received a plethora of honors, including the prestigious Japan Award — Japan's scientific equivalent of the Nobel Prize — for his work in the area of battery technology. Dr. Goodenough was recently awarded the 2009 Enrico Fermi Award by the President of the United States "[f]or his lasting contributions to materials science and technology, especially the science underlying lithium-ion batteries," including the development of "olivine cathode materials of which LiFePO4, in particular, has been commercialized for power applications." The Enrico Fermi Award is bestowed by the President to individuals of international stature in recognition of a lifetime of exceptional scientific achievements related to the development, use, control, or production of energy.

# B. A Monumental Breakthrough: Dr. Goodenough's Team Conceives Of And Develops The Methods And Use Of Olivine Lithium Metal Phosphate Compounds As Cathodes In Rechargeable Batteries.

14. In 1994, Dr. Goodenough directed two researchers to explore various reduction-oxidation couples with polyanions for use in rechargeable batteries. It was this research which PLAINTIFFS' SECOND AMENDED COMPLAINT AND JURY DEMAND C.A. NO. 3:06-CV-1655

PAGE 7

led to the invention of the lithium metal phosphate battery technology that is the subject of the present dispute.

15. In connection with that research, the UT researchers discovered the utility of using the olivine form of various compounds containing lithium (Li), iron (Fe), and phosphate (PO<sub>4</sub>) as cathodes in lithium-ion batteries. Dr. Goodenough immediately recognized the significance of this discovery and instructed them to synthesize quantities of the olivine form of LiFePO<sub>4</sub> and other lithium metal phosphate compounds of the general formula LiMPO<sub>4</sub> using other transition metals to determine the efficacy of such compounds as cathodes in lithium-ion batteries.

### C. <u>The Board of Regents, As Assignee Of Goodenough And His Co-Inventors, Obtains</u> The '382 and '640 Patents.

- 16. On April 23, 1996, the Board of Regents, as the assignee of Professor Goodenough and the other inventors, filed a provisional patent application with the United States Patent and Trademark Office ("USPTO"), covering the olivine form of lithium metal phosphate compounds, including lithium iron phosphate, as cathodes in rechargeable batteries. The Board of Regents filed another provisional United States patent application on December 4, 1996, and filed the ultimate patent application on the technology on April 21, 1997.
- 17. On June 8, 1999, the '382 Patent, entitled "Cathode Materials for Secondary (Rechargeable) Lithium Batteries," issued in favor of the Board of Regents, as assignee of the inventors. The '382 Patent claims cover, among other inventions, secondary (rechargeable) batteries with cathodes "comprising" (*i.e.*, including, but not necessarily limited to) lithium (Li), phosphate (PO<sub>4</sub>), and one or more metal cations (M) including at least one first row transition metal, such as iron (Fe), in an olivine form compound. Such compounds are represented by the general formula "LiMPO<sub>4</sub>." The named inventors on the '382 Patent are Dr. John Goodenough,

Dr. Akshaya Padhi ("Dr. Padhi"), Dr. Kirakodu Nanjundaswamy ("Dr. Swamy"), and Dr. Christian Masquelier ("Dr. Masquelier").

18. On December 24, 1997, the Board of Regents filed a United States continuation-in-part patent application, based on certain aspects of the original applications which led to the issuance of the '382 Patent. On February 4, 2003, the '640 Patent, also entitled "Cathode Materials for Secondary (Rechargeable) Lithium Batteries," issued in favor of the Board of Regents. The claims of the '640 Patent cover, among other things, cathodes comprised of certain ordered olivine or modified olivine mixed-metal lithium phosphate compounds such as, for example, lithium iron niobium phosphate (LiFeNbPO<sub>4</sub>). The named inventors on the '640 Patent are Dr. Michel Armand, Dr. Goodenough, Dr. Padhi, Dr. Swamy, and Dr. Masquelier.

#### D. <u>The USPTO Approves The Claims In The Goodenough Patents As Amended And</u> Issues Reexamination Certificates For The R382 Patent And The R640 Patent.

- 19. After having been placed on notice that it was infringing the '382 Patent and the '640 Patent, on September 8, 2006, A123 filed in the USPTO separate requests for *ex parte* reexamination of both of those patents.
- 20. On April 15, 2008, the USPTO issued an *Ex Parte* Reexamination Certificate confirming the patentability of amended claims 1-9 and new claims 10-11 of the '382 Patent, referred to herein as the R382 Patent. On May 12, 2009, the USPTO issued an Ex Parte Reexamination Certificate confirming the patentability of amended claims 1-6 and 10-24 of the '640 Patent, referred to herein as the R640 Patent. The '382 Patent, the R382 Patent, the '640 Patent, and the R640 Patent are collectively referred to herein as the "Goodenough Patents." Plaintiffs' infringement claims are now predicated solely on the R382 Patent and the R640 Patent, although Defendants' liability for infringement of claim 9 of the R382 Patent commences

from the date of issuance of the '382 Patent because that claim was not substantively amended during reexamination.

## E. The Board of Regents Grants Hydro-Québec A License For Exclusive Rights In A Significant Portion Of The Patented Technology.

- 21. After filing the provisional applications on the '382 Patent, the Board of Regents began negotiations with Hydro-Québec to license the invention.
- 22. Effective January 1, 1997, the Board of Regents and Hydro-Québec entered into a Patent License Agreement, whereby Hydro-Québec obtained the exclusive license to make, use and sell a significant portion of the field of technology described and claimed in the '382 Patent and any continuation-in-part patents, including, without limitation, the '640 Patent, and any reissues and reexaminations of those patents, as well as the right to sub-license that technology. Specifically, pursuant to the Patent License Agreement, the Board of Regents granted to Hydro-Québec an exclusive license to manufacture, have manufactured, use, sell, import, and offer for sale products (including both cathode materials and batteries) covered by the '382 Patent within the field of "primary and secondary electrochemical generators having a solid electrolyte, gelled, plasticized or not plasticized, comprising a solution of at least one metallic salt in an aprotic polymeric material." In exchange, the Board of Regents received an up front payment and the right to receive royalty payments from Hydro-Québec and its sub-licensees.
- 23. The Patent License Agreement has been amended on three occasions March 1, 1998, June 1, 1999 and January 11, 2006 (hereinafter, the "Amendments"). Each of the Amendments expanded the exclusive rights granted to Hydro-Québec with respect to the patented technology. Among the additional rights granted to Hydro-Québec pursuant to the second amendment was "a royalty-bearing, exclusive, worldwide license to manufacture LiFePO<sub>4</sub> and sell LiFePO<sub>4</sub> in bulk quantities for all applications of the technology." As a result,

Hydro-Québec has the exclusive right, power, and privilege to manufacture (or, through sublicensees, control the production of) patented cathode materials including LiFePO<sub>4</sub> — the critical cathode material of the world's next generation of rechargeable batteries for computers, power tools, mobility products, such as electric scooters, consumer electronics, cell phones, large-scale power storage applications, and hybrid electric vehicles (HEVs).

- 24. Under the Patent License Agreement and Amendments, the Board of Regents retained the right to license other parties in other fields of use, including the right to license: (1) the production, use, and sale of lithium-ion batteries having a liquid electrolyte; and (2) the use and sale of LiFePO4 as a cathode material for liquid electrolyte applications.
- 25. Under the Patent License Agreement and Amendments, Hydro-Québec assumed the duty of enforcing the '382 and '640 Patents against infringement by third-parties.

#### F. The Patented Technology Is Widely Recognized Throughout The Industry.

- 26. In May 1996, at the annual meeting of the Electrochemical Society ("ECS"), Dr. Goodenough and the members of his research team, Dr. Padhi, Dr. Swamy, and Dr. Masquelier, presented research on the use of the olivine form of LiFePO4 as a cathode in secondary batteries. A subsequent publication on their work, entitled "*Phospho-olivines as Positive Electrode Materials for Rechargeable Lithium Batteries*," Padhi, et al., J. Electrochem. Soc., 144, 1188 (Apr. 1997), is universally recognized and cited by those in the scientific industry as being the first published article to recognize that the olivine form of LiFePO<sub>4</sub> can be beneficially used as a cathode in rechargeable batteries.
- 27. Scientists throughout the world have recognized the importance of Professor Goodenough's invention and Hydro-Québec's rights therein and have concluded that the LiFePO<sub>4</sub>-based compounds will be the critical components of the next-generation of

rechargeable batteries. For example, in an article published in *Nature Materials*, Vol. 1, October 2002, Dr. Michael Thackeray of the Argonne National Laboratory wrote in 2002:

Lithium iron phosphate, LiFePO<sub>4</sub>, was first reported as a positive electrode for rechargeable lithium-ion batteries in 1997 by John Goodenough and co-workers at The University of Texas, Austin ... Perhaps not surprisingly, it was also John Goodenough who, in 1980, while at Oxford University, first reported that LiCoO<sub>2</sub> [lithium cobalt oxide] could be used as a high-potential electrode for lithium batteries. But despite its widespread use, LiCoO<sub>2</sub> is a relatively expensive material. LiFePO<sub>4</sub> would, therefore, be an attractive low-cost alternative.

28. In another article published in Nature Materials, Vol. 1, October 2002, Dr. Yet-Ming Chiang, A123's co-founder, and two other professors within the Materials Science and Engineering Department at the Massachusetts Institute of Technology ("MIT"), wrote:

Now, sparked by work from Goodenough's laboratory, there is great interest in polyanion compounds as lithium storage electrodes for rechargeable batteries ... Lithium transition metal phosphates have become of great interest as storage cathodes for rechargeable lithium batteries because of their high energy density, low raw materials cost, environmental friendliness and safety.

- 29. In the Spring of 2009, the ECS published a special issue of its magazine to celebrate the scientific contributions of its members. Leading scientists and ECS members were polled to determine which specific papers in the Journal of the Electrochemical Society's (the "Journal") one hundred year history had the greatest impact on the scientific community. The ECS published a list of "the classics" which comprised 100 of the most-cited Journal articles the Padhi, et al. paper entitled "Phospho-olivines as Positive Electrode Materials for Rechargeable Lithium Batteries," was ranked fourth on that list.
- 30. Secondary batteries comprising lithium metal phosphate and/or lithium mixed-metal phosphate cathodes covered by the Goodenough Patents can power virtually every type of electronic device, including cordless power tools, cell phones, microelectronics, lap-top

computers, and digital cameras, to name a few. Other applications of lithium metal and mixed-metal phosphate batteries covered under the Goodenough Patents include back-up power supply units for utility companies, wheelchairs, scooters, and other vehicles such as hybrid electric vehicles.

31. The importance of the patented technology at issue in this action is beyond dispute. Nevertheless, A123 is knowingly infringing the R382 and R640 Patents and, thus, depriving Plaintiffs of their valuable patent rights.

#### G. A123: Building Its Business On Infringing Products.

- 32. Founded in 2001 by MIT Professor Yet-Ming Chiang and others, A123 purports to be a "developer of a new generation of lithium-ion batteries." In truth, A123 is a willful infringer of Plaintiffs' patent rights. Whatever commercial notoriety A123 has enjoyed to date is due to the technology claimed in the R382 and R640 Patents.
- 33. Professor Chiang's and A123's dependence on Plaintiffs' technology is well known. *Science News Online* reported the following in its September 28, 2002 edition:

In 1997, researchers at the University of Texas in Austin proposed a new cathode material, lithium iron phosphate, which is cheaper and safer than lithium cobalt oxide ... Now, Yet-Ming Chiang and his coworkers at the Massachusetts Institute of Technology have spiced lithium iron phosphate with small amounts of metal ions — such as aluminum, niobium, and zirconium — in a process called doping.

34. What that article failed to mention is that the "researchers" who proposed lithium iron phosphate as a cathode material — Dr. John Goodenough and the scientists working under his direction at UT's Material Science and Engineering Department — are named inventors on issued patents covering that technology and, furthermore, that any use, production, or sale of MIT's "spiced" or "doped" versions of that patented material constitutes an infringement of Plaintiffs' patent rights.

35. With full knowledge of the foregoing, MIT nevertheless publicized its continuing use and manipulation of Plaintiffs' patented technology just one month later, on MIT's *News Office* website, dated October 23, 2002:

For several years, researchers in the battery community have been interested in finding a replacement for one of the materials key to state-of-the-art rechargeable batteries. That compound, composed of lithium, cobalt and oxygen, works well in general but is very expensive. Safety factors also limit the size of the battery that can be made with the material. "It's highly reactive with other battery components when charged, which can lead to overheating," explained Chiang, the Kyocera Professor of Ceramics. In 1997, a team at the University of Texas at Austin identified a potential replacement. Among other attributes, lithium iron phosphate was cheap, environmentally friendly and safe.

The article went on to describe Chiang's attempts to improve LiFePO<sub>4</sub> cathodes by "essentially spiking the original material with tiny amounts of metal." Of course, whether called "spiking," "doping," or "spicing," the substitution of some of the iron (Fe) with other metals, such as niobium (Nb), was covered by the original '640 Patent and is now covered by the R640 Patent.

36. Chiang and his colleagues at MIT have filed one or more applications for United States patents to cover their purported "invention" of olivine LiFePO<sub>4</sub> cathodes spiked with small amounts of one or more other metals, such as niobium (Nb). In evaluating those applications, the USPTO recognized that MIT's patent claims as originally drafted were covered by the Goodenough Patents. For example, on January 20, 2006, the USPTO rejected Chiang's patent application filed December 23, 2002, for claims covering *inter alia*, niobium-spiked LiFePO<sub>4</sub> "as being unpatentable over Goodenough et al, US 5,910,382" — the '382 Patent. Although MIT eventually obtained a patent on March 4, 2008, based on that application, its validity is questionable in light of the '640 Patent and the R640 Patent. More significantly, A123's practice of its patent requires a license under the base or pioneer Goodenough Patents.

- 37. A123's claim to patent protection on its cathodes is deceptive and misleading in light of its failure to obtain a license under the *pioneer* R382 and/or R640 Patents the intellectual property on which commercial success of Chiang and A123 necessarily depends.
- 38. In an article published on November 2, 2005, entitled "Battery Pumps Up Power Tools A new lithium-ion battery from startup A123 Systems promises five time as much power for 10 times as long as competitors," A123's CEO, David Vieau, bragged: "We expect that our technology will have the same impact on high-power products as the introduction of first generation lithium-ion technology had on the development and commercialization of consumer electronics in the 1990s." That same day, A123 announced that it had entered into an agreement to sell to Black & Decker batteries to be used and installed in Black & Decker's entire DeWalt line of 36-volt cordless power tools available in 2006.

## H. <u>A123 And Black & Decker Ignore Hydro-Québec's Demand To Cease And Desist From Further Acts Of Infringement.</u>

- 39. By letter dated November 14, 2005, Hydro-Québec placed A123 and Black & Decker on notice that "the '382 patent is being infringed by the lithium metal phosphate technology that you are manufacturing, marketing and selling in the United States." Hydro-Québec's letter "demand[ed] that A123 immediately cease and desist infringement of the '382 patent."
- 40. A123 and Black & Decker ignored Hydro-Québec's demand. Indeed, at the Advanced Automotive Battery Conference held in Baltimore, Maryland, on May 15-19, 2006, Rick Fulop, one of A123's founders and its Vice President of Business Development and Marketing, made a presentation, entitled, "High-Power, Long-Life Power Tool Batteries Using Lithium-Ion Nanophosphate Cathodes." Mr. Fulop provided a demonstration of Al23's lithiumion batteries in Black & Decker's DeWalt line of 36-volt cordless power tools and announced

that the products would be available in Home Depot and Lowes stores nationwide that coming weekend. He also announced that A123 had plans to market its battery products for use in hybrid electric vehicles and portable medical products. During the question and answer session following his presentation, Mr. Fulop was asked to describe A123's cathode material. Fulop replied that the material "is LiFePO<sub>4</sub>, but improved."

- 41. In June 2006, Black & Decker's new line of DeWalt 36-volt cordless power tools containing the A123 infringing batteries became available in Home Depot and Lowes stores throughout the country, including stores located in Dallas County, Texas.
- 42. Plaintiffs have scientifically tested the A123 batteries in Black & Decker's DeWalt line of 36-volt cordless power tools and have determined that the cathode material is a composition of olivine LiFePO<sub>4</sub>, niobium (Nb), magnesium (Mg), and manganese (Mn). Thus, Defendants have infringed, and are infringing, one or more claims of each of the patents-in-suit.

#### V. CLAIMS

# A. <u>Count One: Patent Infringement - Request For Permanent Injunctive Relief Pursuant To 35 U.S.C. § 283.</u>

- 43. Plaintiffs reallege and incorporate the allegations set forth in the preceding paragraphs as if set forth in full herein.
- 44. The R382 Patent and the R640 Patent are valid, enforceable, and in full force and effect. The validity of the those patents is not only presumed as a matter of law pursuant to 35 U.S.C. § 282, but is further reflected in: (a) their acceptance by the Board of Regents' and Hydro-Québec's licensees and sub-licensees; (b) the widespread recognition and acclaim that the inventors have received throughout the battery industry and marketplace as the innovators of that ground-breaking technology in the field of secondary power sources; and (c) the USPTO's

approval of the R382 Patent and the R640 Patent in light of the lengthy and numerous prior art arguments raised by A123 in its *Ex Parte* Requests for Reexamination.

- 45. Defendants have infringed, engaged in acts of contributory infringement and/or induced the infringement of one or more claims of each of the patents-in-suit, by manufacturing, having manufactured, using, importing into the United States, selling and/or offering to sell cathodes and secondary battery products that embody, incorporate and/or practice one or more of those claims. Moreover, Defendants continue to engage in such unlawful conduct.
- 46. Having been placed on notice of the Goodenough Patents and their infringement thereof, A123's and Black & Decker's continued production and sale of infringing products constitutes a willful violation of the U.S. patent laws.
- 47. Plaintiffs have implemented a well-conceived, efficient, and effective plan for commercializing the patented lithium iron phosphate battery technology. Specifically, Hydro-Québec and/or the Board of Regents currently sub-license Phostech Lithium, Inc. and Sony Corporation to practice, make, use, or sell the inventions in which it has exclusive rights. Each of those sub-license agreements is carefully-crafted with respect to the specific field of use in which the sub-licensee may utilize Hydro-Québec's and/or the Board of Regents' rights in the Goodenough Patents. Indeed, Sony recently announced that it had commenced shipping secondary batteries with the patented olivine-type lithium iron phosphate cathodes in June 2009. Those batteries are intended for use in motor driven devices such as power tools and in a wide range of mobile electronic devices such as mobile phones and netbooks.
- 48. Defendants' infringing activities threaten to irreparably harm Hydro-Québec and the Board of Regents by destroying their plan for commercializing the Goodenough Patents.

- 49. The balance of equities favors Hydro-Québec and the Board of Regents. They own and control the rights to commercialize, and reap the benefits from the production of, patented lithium iron phosphate cathodes. Defendants are willful infringers who are unlawfully producing and deceptively selling infringing products. In the absence of an injunction, Hydro-Québec's and the Board of Regents' carefully-formulated plan for commercializing the patented technology through a few highly-qualified manufacturers and sellers will be destroyed, as will be the goodwill associated with the Goodenough Patents. Without injunctive relief, Hydro-Québec and the Board of Regents will lose their right to control the quality and purity of the patented cathodes in the lithium iron phosphate batteries now being distributed to the public. That control is of critical importance to Hydro-Québec and the Board of Regents, given that the market for LiFePO<sub>4</sub>-based battery products has gained commercial traction, and initial positive public response will help to drive future acceptance by a greater number of consumers.
- 50. Therefore, Plaintiffs respectfully request that this Court issue a permanent injunction prohibiting Defendants, and their officers, directors, employees, agents, subsidiaries, affiliates and all those in active concert with them, from: (a) infringing, contributing to the infringement, or inducing the infringement of the R382 and R640 Patents; and (b) making, having made, using, selling, offering for sale, or importing any cathodes or battery products, systems, or component parts embodying, incorporating and/or practicing any of the inventions described and claimed in the R382 and R640 Patents, including, but not limited to, any other battery products utilizing olivine lithium iron phosphate.

# B. <u>Count Two: Patent Infringement - Request For Recovery Of Monetary Damages Pursuant To 35 U.S.C. § 284.</u>

51. Plaintiffs reallege and incorporate the allegations set forth in the preceding paragraphs as if set forth in full herein.

- 52. In addition to permanent injunctive relief to prevent Defendants from engaging in further acts of infringement in violation of the R382 Patent and the R640 Patent, Plaintiffs seek an award of money damages to compensate them fully for the injuries they have sustained as a result of Defendants' infringement of one or more claims of each of the patents-in-suit.
- 53. Accordingly, pursuant to 35 U.S.C. § 284, Plaintiffs seek an award of damages in the amount assessed by the jury to compensate them for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as determined by the Court.
- 54. Furthermore, Plaintiffs request that the Court increase the damages up to three times the amount found or assessed by the jury pursuant to 35 U.S.C. § 284.

#### VI. JURY DEMAND

Plaintiffs hereby request a jury trial on all matters so triable under the Constitution, laws, or statutes of the United States.

#### VII. RELIEF REQUESTED

Considering the premises, Plaintiffs request that this Court enter judgment in their favor and against Defendants, providing for the following relief:

- a. Permanent injunctive relief against Defendants, their agents, representatives, employees, and servants and all persons and entities in concert or participation with them, requiring them to cease and refrain from making, using and/or selling the patented technology or any product containing the patented technology in violation of Plaintiffs' rights under the R382 and R640 Patent;
- b. Actual damages in an amount to be determined at trial;

- c. Increased damages pursuant to 35 U.S.C. § 284 and/or treble damages pursuant to 15 U.S.C. § 1117 (a);
- d. Reasonable and necessary attorneys' fees incurred by Plaintiffs in connection with this action pursuant to 35 U.S.C. § 285 and/or 15 U.S.C. § 1117(a);
- e. Prejudgment and post-judgment interest at the highest rate(s) allowed by law;
- f. Costs of court; and
- g. Such other and further relief which this Court may deem just and proper.

Respectfully submitted,

By: /s/ James W. Cannon

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#### **CERTIFICATE OF SERVICE**

I certify that on May 18, 2010, a true and correct copy of the attached Second Amended Complaint and Jury Demand was electronically filed through the Court's CM/ECF system, and was served through that system by electronic mail on counsel of record:

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